

## Input Data

This indicates all tables and fields from the RDB needed to run the algorithm.

RDB Table	RDB Field	Comment
BUSINESS_ATTR_2	BUS_ATTR2_DIM_I	Primary key – table contains additional attributes for Business Dimension
	CUWY_STUS_C	Stores current treaty status
	ACTG_BSIS_C	Treaty accounting basis code
	CLM_BSIS_C	Treaty Claim Basis code
BUSINESS	DATE_UPDATED	Date when treaty record was last updated in RDB
	CVF_D	Treaty Inception Date
	CVT_D	Treaty Expiry Date
	SRC_SYS_N	Source system of treaty
	BUS_PRTF_I	Treaty portfolio ID
	TRTY_NUM_I	Treaty number from source system
	BUS_DIM_I	Business table primary key
	BUS_ATTR_1_DIM_I	Business_attr_1 table foreign key
	BUS_ATTR_2_DIM_I	Business_attr_2 table foreign key
	UWG_YR_D	Treaty underwriting year
	INWD_OWRD_C	Inward/Outward business code
	TRANS_SIGN_C	Indicates underwriter of treaty
	EPI	EPI of treaty (SICS only – see discussion below)
LAST_ULT_STUS	ORIG_EPI_A	EPI of SICS Treaty – see discussion below)
	GBL_FIN_YR_D	Financial year of last ultimate status record

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	GBL_QTR_C	Quarter of last ultimate status record.
BUSINESS_ATTR_1	BUSINESS_ATTR_1_DIM_I	Additional attributes for business dimension Primary key
	ORIG_TYP_OF_BUS_C	Screen type from SICs
BUSINESS_ADDL_WA		Additional treaty information for Writasure
	METH_PLACING_C	Method of Placing of treaty
	PROP_COVER_BASIS_C	Cover basis for Prop treaties
	XL_COVER_BASIS_C	Cover basis for Excess of Loss treaties
	PROP_EPI_SHARE_A	EPI amount for proportional treaties
	FAC_SUM_XLTITYDEPPREM_OS_A	EPI amount for Excess of Loss proportional treaties
	SEC_PRMSHR_A	EPI amount for facultative treaties
	FAC_SUM_MAXLIMIT_A	Claims limit for Excess of Loss treaties
	TRTY_NUM_I	Treaty number of contract in Business table
	ACCDT_UWG_YR_D	Treaty Underwriting year
	SEC_C	Treaty Section number.
ACCOUNTING_DETAIL	ENTR_C	Global code for an accounting detail record
	ORIG_CUR_C	Booking Currency
	ORIG_CUR_A	Amount in treaty currency.
	GBL_A	USD booking amount.
	DTL_REC_I	Accounting Detail primary key
	BUS_DIM_I	Business Table foreign key (table also contains treaty number, source system and underwriting year).
DTL_OBJ_REF	DTL_REC_I	Accounting detail table foreign key
	DTL_OBJ_I	Reference string from which treaty section information can

		be derived.
EXCHANGE_RATE	EXCH_RATE_DIM_I	Table primary key
	CUR_C	Exchange rate currency
	EXCH_Z	Exchange rate (CUR_C to USD)
	EXCH_RATE_D	Date (month) exchange rate is valid for.

Note : The Exchange Rate table to be used is the Sap\_Rates table. The Exchange\_Rate table structure as shown above is not to be used. The Exchange Rate has to be searched on quarterly basis in the Sap\_Rates table. A History Policy has to be applied while searching for the exchange Rate, which means that if the exchange rate for the current quarter is not found then the search should go back in history on quarter basis. The structure of the Sap\_Rates table is as follows.

Sap_Rates	ISOCODE	Exchange rate currency
	CURCODE	Constant value 14
	YEAR	Exchange rate year
	QUARTER	Exchange rate quarter.
	RATE	Exchange rate (ISOCODE to USD)

### 1.3 Output Data

*n.b. As more of the conditions of the SCA are clarified, this data may be expanded. Design decisions may also change data requirements.*

#### User Reports

There are three reports necessary

##### 1. Historical Exception report.

This report needs to be run only once. Its purpose is to check whether there are any treaties from the Writasure system prior to underwriting year 1999 that are not in Status 40.

Logical Name	RDB Table	RDB Field	Comment
Treaty Number	BUSINESS	TRTY_NUM_I	
Underwriting Year	BUSINESS	UWG_YR_D	
Writasure Treaty Number	BUSINESS_ADDL_WA	CNTRCT_REF_T	
Product Type	BUSINESS_ADDL_WA	METH_PLACING_C	(First character in string only)
Class of Business	BUSINESS_ADDL_WA	MJR_CLS_C	
Treaty EPI	See above for source fields (connected to method of placing).		Global EPI in USD
Sum of Premium Booked	Generated by SCM		Convert to USD
Difference between EPI and Premium	Generated by SCM		EPI – sum of Booked premium
Section Number	BUSINESS_ADDL_WA	SEC_C	
Currency Code	BUSINESS_ADDL_WA	CUR_C	For Fac treaties this should be SEC_CUR_C
Treaty Status	Generated by SCM		
Treaty Inception Date	BUSINESS	CVF_D	
Treaty Expiry Date	BUSINESS	CVT_D	
Off Estimation Date	Generated by SCM		

## 2. Early Booking Report (corresponding to step 4.8 in process map).

This is an exception report that should be produced each time the Status Change Module is run it only needs to be produced if there is an error flagged in step 4.8 (The treaty is during risk period but Accounted premium is greater than EPI). The data structure is almost the same as above with no Status code included.

Logical Name	RDB Table	RDB Field	Comment
Treaty Number	BUSINESS	TRTY_NUM_I	
Underwriting Year	BUSINESS	UWG_YR_D	
Writasure Treaty Number	BUSINESS_ADDL_WA	CNTRCT_REF_T	
Product Type	BUSINESS_ADDL_WA	METH_PLACING_C	(First character in string only)
Class of Business	BUSINESS_ADDL_WA	MJR_CLS_C	
Treaty EPI	See above for source fields (connected to method of placing).		
Sum of Premium Booked	Generated by SCM		
Difference between EPI and Premium	Generated by SCM		EPI – sum of Booked premium
Section Number	BUSINESS_ADDL_WA	SEC_C	
Currency Code	BUSINESS_ADDL_WA	CUR_C	For Fac treaties this should be SEC_CUR_C
Treaty Inception Date	BUSINESS	CVF_D	
Treaty Expiry Date	BUSINESS	CVT_D	
Off Estimation Date	Generated by SCM		

## 3. Status 35 Report

This report should be produced each time the SCM is run and should contain data on all treaties put into status 35.

Logical Name	RDB Table	RDB Field	Comment
Treaty Number	BUSINESS	TRTY_NUM_I	

Underwriting Year	BUSINESS	UWG_YR_D	
Writasure Treaty Number	BUSINESS_ADDL_WA	CNTRCT_REF_T	
Product Type	BUSINESS_ADDL_WA	METH_PLACING_C	(First character in string only)
Class of Business	BUSINESS_ADDL_WA	MJR_CLS_C	
Section Number	BUSINESS_ADDL_WA	SEC_C	
Currency Code	BUSINESS_ADDL_WA	CUR_C	For Fac treaties this should be SEC_CUR_C
Treaty EPI	See above for source fields (connected to method of placing).		
Sum of Premium Booked	Generated by SCM		
Treaty Claims Limit	BUSINESS_ADDL_WA	FAC_SUM_MAXLIMIT_A	
Treaty Claims Booked	Generated by SCM		Sum of claims as calculated by algorithm.
Treaty Inception Date	BUSINESS	CVF_D	
Treaty Expiry Date	BUSINESS	CVT_D	
Off Estimation Date	Generated by SCM		

## Data Requirements

We need to keep a history of Business dimension table attributes as the history of these attributes is not satisfactorily tracked for the purposes of the SCM (treaty inception and expiry dates and cover basis).

We need to track the LAST\_UPDATED attribute of the BUSINESS dimension which will indicate if any change has been made to the table. So, if the LAST\_UPDATED date changes in the Business table, a new record should be created rather than the current one erased.

For each treaty we should have at least one status record which should reflect the latest status of the treaty.

Additional fields needed for RDB data

The Off-Estimate Date and Treaty Earning Curve are generated and populated by the algorithm.

The Status Change date is included as there is no time dimension. The user can search the table to look at the latest set of records generated.

Total Paid Claims should only be populated for Excess of Loss treaties in Writasure (where the treaty reaches the relevant step in the process). This indicates the total paid in treaty main currency as of Status Change Date.

Total Premium Booked indicates the total premium booked as of Status Change Date in treaty main currency, like Total Paid Claims it only needs to be populated if the Treaty reaches the relevant step in the algorithm.

#### Treaty Header Data

RDB Table	RDB Field	Comment
BUSINESS_ATTR_2	BUS_ATTR2_DIM_I	Primary key – table contains additional attributes for Business Dimension
	CUWY_STUS_C	Stores current treaty status
	ACTG_BSIS_C	Treaty accounting basis code
	CLM_BSIS_C	Treaty Claim Basis code
BUSINESS	DATE_UPDATED	Date when treaty record was last updated in RDB
	CVF_D	Treaty Inception Date
	CVT_D	Treaty Expiry Date
	SRC_SYS_N	Source system of treaty
	TRTY_NUM_I	Treaty number from source system
	BUS_DIM_I	Business table primary key
	BUS_ATTR_1_DIM_I	Business_attr_1 table foreign key
	BUS_ATTR_2_DIM_I	Business_attr_2 table foreign key
	UWG_YR_D	Treaty underwriting year
	INWD_OWRD_C	Inward/Outward business code
	TRANS_SIGN_C	Indicates underwriter of treaty
LAST_ULT_STUS	BUS_PRTF_I	Treaty Portfolio Id
	EPI	EPI of treaty (SICS only – see discussion below)
	ORIG_EPI_A	EPI of SICS treaty – see discussion below)

	GBL_FIN_YR_D	Financial year of last ultimate status record
	GBL_QTR_C	Quarter of last ultimate status record.
BUSINESS_ATTR_1	BUSINESS_ATTR_1_DIM_I	Additional attributes for business dimension Primary key
	ORIG_TYP_OF_BUS_C	Screen type from SICS
BUSINESS_ADDL_WA		Additional treaty information for Writasure
	METH_PLACING_C	Method of Placing of treaty
	PROP_COVER_BASIS_C	Cover basis for Prop treaties
	XL_COVER_BASIS_C	Cover basis for Excess of Loss treaties
	PROP_EPI_SHARE_A	EPI amount for proportional treaties
	FAC_SUM_XLTTYPEPPREM_OS_A	EPI amount for Excess of Loss proportional treaties
	SEC_PRMSHR_A	EPI amount for facultative treaties
	FAC_SUM_MAXLIMIT_A	Claims limit for Excess of Loss treaties
	TRTY_NUM_I	Treaty number of contract in Business table
	ACCDDET_UWG_YR_D	Treaty Underwriting year
	SEC_C	Treaty Section number.
	GBL_EPI_A	EPI amount in USD. Not in RDB - generated by SCM where EPI currency not USD

#### Accounting Detail Data

RDB Table	RDB Field	Comment
ACCOUNTING_DETAIL	ENTR_C	Global code for an accounting detail record
	ORIG_CUR_C	Booking Currency
	ORIG_CUR_A	Amount in treaty currency.



	GBL_A	USD booking amount.
	DTL_REC_I	Accounting Detail primary key
	BUS_DIM_I	Business Table foreign key (table also contains treaty number, source system and underwriting year).
DTL_OBJ_REF	DTL_REC_I	Accounting detail table foreign key
	DTL_OBJ_I	Reference string from which treaty section information can be derived.

### Booking Summary Data

Whilst comparisons should be done in USD at treaty/section level, finance may want to get information on how figures were derived. There may be multiple records per treaty. There is no need to preserve history so records can be overwritten as sums of premium increase.

Logical Name	RDB Source Table	RDB Source Field	Type	Null	Comment
Primary Key	None	None	None	Not null	
Treaty header key	BUSINESS	BUS_DIM_I			
Booking Currency	ACCOUNTING_DETAIL	ORIG_CUR_C			
Booking Section	DTL_OBJ_REF	DTL_OBJ_I			Substring as described above
Treaty section	BUSINESS_ADDL_WA	SEC_C			For Writasure Fac treaties
Booking Code	ACCOUNTING_DETAIL	ENTR_C			
Booking amount	Currency	Generated by SCM			Sum of bookings in original currency
Global amount	Currency	Generated by SCM			Sum of bookings in USD.
Status Date	Change				
SessionID					

### Treaty Status Data

Logical Name	RDB Source Table	RDB Source Field	Type	Null	Comment
Primary Key	None	None	None	Not null	

Session Key					Generated by SCM session.
Treaty header key	BUSINESS	BUS_DIM_I			
Off-Estimate Date	None	None	None	Not null	Generated by algorithm
Treaty Delay Period	None	None	Number(10)		= 90
Treaty Earning curve	None	None	VARCHAR(10)	NOT NULL	
New Treaty Status	none	none	VARCHAR2(2)	NOT NULL	Generated by algorithm
Status Change Date	none	none	DATE(7)	NOT NULL	today; day that status change record generated
Total paid claims	None	None			Total paid claims to date from algorithm step. Only necessary for Excess of Loss Treaties
Total premiums booked	None	None			Total booked premiums to date from algorithm step.
Inception Date					
ExpiryDate					

#### Cover Basis

Cover basis for Writasure treaties can be determined using the business rule below.

If BUSINESS\_ADDL\_WA.METH\_PLACING\_C='P%'

Treaty Cover Basis = BUSINESS\_ADDL\_WA.PROP\_COVER\_BASIS\_C

ELSE IF BUSINESS\_ADDL\_WA.METH\_PLACING\_C='X%'

Treaty Cover Basis = BUSINESS\_ADDL\_WA.XL\_COVER\_BASIS\_C ,

else

Treaty Cover Basis = blank

For SICS treaties this can be determined from the BUSINESS\_ATTR\_2.CLM\_BSIS\_C.

## 2.2 Create Reverse Bookings

### Input Data

RDB Table	RDB Field	Comment
DATE_AND_PERIOD	ORIG_CMPR_D	
BUSINESS_ATTR_2	CUWY_STUS_C	
	ORIG_BUS_CUR_C	
ACCOUNTING_DETAIL	CUR_C	
	SRC_SYS_N	
	ENTR_C	
	ORIG_CUR_A	
	BUS_DIM_I	
BUSINESS	TRTY_NUM_I	
	UWG_YR_D	
	ORIG_BUS_REIR_C	
	CDNT_I	
	BRKR_I	
BUSINESS_ATTR_1.	DIR_INDIR_F	
	ORIG_TTY_CLS_C	

### Conditions

Create records using the rdb.accounting\_detail table data where:

- RDB.DATE\_AND\_PERIOD.ORIG\_CMPR\_D >= Last session run date
- If it is not a first SCM run then
  - BUSINESS\_ATTR\_2.CUWY\_STUS\_C = '20'
- Else
  - Pick up all the records without taking the status into consideration.
- ACCOUNTING\_DETAIL.CUR\_C != BUSINESS\_ATTR\_2.ORIG\_BUS\_CUR\_C

- ACCOUNTING\_DETAIL.SRC\_SYS\_N = 'WRITASURE'
- If ACCOUNTING\_DETAIL.ENTR\_C in (E1, R1, 1A, 1B, 1C, 1E, 1F, 1G, 1L, 1M, 1N, 1P, 1R, 1S, 10, 11, 12, 13, 14, 15, 16, 17, 18, 65, 66,) then reverse with entry code 'EC'
- If ACCOUNTING\_DETAIL.ENTR\_C in (E0, R0, 0A, 0I, 0R, 01, 02, 03) then reverse with 'EP'
- $SUM(ACCOUNTING\_DETAIL.ORIG\_CUR\_A) * -1$
- Group by BUSINESS.TRTRY\_NUM\_I, BUSINESS.UWG\_YR\_D, BUSINESS.ORIG\_BUS\_REIR\_C, ACCOUNTING\_DETAIL.ENTR\_C, ACCOUNTING\_DETAIL.CURR\_C,

Last session run date represents the date on which the last reverse bookings session was run – i.e. the date closest to today's date.

## Output Data Set

The table below describes the output data required. The logical name is the column name, the Source indicates the input data to populate the field. This is very similar to the UEP Calculator output data set.

Logical Name	Source (Input Data)	Comment/Issues
Id	Sequence in Oracle Uniquely identifies a record in the output table.	
Session Id	FK from Session Table	
Source	BUSINESS.SRC_SYS_N	
reinsure	BUSINESS.ORIG_BUS_REIR_C	
book_id	Unique Id (Primary key)	
uw_year	BUSINESS.UWG_YR_D	
Occ_year	0	
Account_year	[current Year]	Hard-code/

		parametrise
Account_perio d	Y1	Hard-code/ parametrise
BYRP	[curentyear/quarter]	Hard-code/ parametrise
book_Branch	Blank	Leave Blank
Bookcode	Reverse code EC or EP	
orig_curr	ACCOUNTING_DETAIL.CU R_C	
Amount	(Sum of ACCOUNTING_DETAIL. ORIG_CUR_A) * -1	
Sign	[sign] blank	Leave blank
A_type	Leave blank	
claim_id	Blank	
Pool_id	Blank	
Refno	blank	Leave blank
Ref_type	TECHNICAL ACCNT	Hard code/parametrise
computer_date	[Today]	Hard-code/ parametrise
Posting_date	[Today]	Hard-code/ parametrise
treatyno	BUSINESS.TRTY_NUM_I	
in_out	INWARDS	Hardcode/paramet rise
dir_indir	BUSINESS_ATTR_1. DIR_INDIR_F	Hard-code/ parametrise 'I'
branch	BUSINESS_ATTR_1.orig _TTY_CLS_C	
pool_re	blank	
Cedent	BUSINESS.CDNT_I	
Broker	BUSINESS._BRKR_I	
Sap_comp	Blank	Leave blank
Bus_area	blank	Leave blank

Agg_code	Blank	Leave blank
SAP_type	blank	
SAP_branch	blank	
trading_part	Blank	
Bank_account	Blank	
SAP_cur	Blank	
Sap_aggr	YES	Hard Code/parametrise it to "YES"
orig_computer_date	[today]	Hard code/parametrise to today's date
Lirma_ref	blank	
lirma_f	N	Hard Code it to "N"

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### 3.1 Additional Specification – Writasure Deleted Treaty Status

#### 3.1.1 Introduction

User requirements supplied after the initial sign-off of the SCM Algorithm are described below. These relate only to Writasure treaties and are based on the field CNTRCT\_STUS\_C in the RDB table BUSINESS\_ADDL\_WA.

This field should be tested for each Writasure treaty and depending on its value, a status should be assigned or the treaty should be fed through the original status change algorithm. Therefore this field takes precedence over the Status Change Algorithm for certain treaty status's.

Please also refer to SCA\_v2.vsd or SCA\_v2.gif for the amended Status Change Algorithm.

Deleted Treaty Status is assigned the number 60.

#### 3.1.2 CNTRCT\_STUS\_C

This is a nullable VARCHAR2(1) field. The field has the following values.

Field Value	Status	Comment
C	Closed	First premium has been sent
D	Declined	N.T.U mostly used
E	Expired	Treaty off-risk (rarely used)
I	Information Only	for London Aviation only
N	N.T.U	Not taken up
O	Offered	offered to us
Q	Quote	quoted by us
W	Written	Bound
X	Cancelled	
Z	Dead	

### 3.1.3 Treaty Status mapping

The above Status's map to process Steps/status assignments described below.

Field Value	Process Step
C, W, E	Continue with Status Change Algorithm as normal.
O, Q	Treaty Status = 10
D, N, I, X, Z	Treaty Status = 60

If the contract status is O or Q the treaty is put into status 10 straight away and does not go through

### 3.1.4 Reverse Booking Functionality.

Any treaties in Status 10 or 60 should have all bookings made against them reversed. This functionality will be handled by the Unearned Premium Calculator and will be implemented in a later generation of the same.

### 3.1.5 CNTRCT\_SYS\_STUS\_C

CNTRCT\_SYS\_STUS\_C is in the BUSINESS\_ADDL\_WA table. It has three values:

Field Value	Explanation
C	Complete
H	Held
I	Incomplete

For the Status Change Algorithm we are only interested in contracts with a system status of 'C'. Status H and I contracts should be put into status 10.



### 3.1.6 Additional Reversal of Booking Logic

If a reverse booking is generated with an amount field of 0 it does not need to be written to the reverse booking table.